

Application No.: 10/707,099

Docket No.: 60680-1818

**REMARKS**

Applicant has carefully reviewed the Office Action dated June 10, 2005, and thanks Examiner Sharp for his detailed review of the pending claims.

The Examiner has rejected claims 1 - 5 and 7 - 15 as being anticipated under 35 U.S.C. § 102(b). Claims 1 - 16 have been rejected as being unpatentable under 35 U.S.C. § 103(a) by a number of references listed below in detail. Independent claims 1 and 11 have been amended. Claims 6 and 16 have been cancelled. Accordingly, claims 1-5 and 7- 15 remain pending in this application. Applicant respectfully requests reconsideration of the present application in view of the following remarks. No new matter has been added.

**I. Claim Rejections Under 35 U.S.C. §102(b)**

Claims 1 - 5 and 7 - 15 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. RE14,969 to Norwood (hereinafter "Norwood 969"). The Examiner further states that U.S. Patent No. 1,404,540 to Norwood (hereinafter "Norwood 540") also anticipates claims 1 - 5 and 7 - 15. Applicant respectfully traverses the rejection.

To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1, as amended, requires "a generally hook-shaped groove and the intersection of the generally hook-shaped groove and the outer peripheral face defines an edge," that neither Norwood 969 nor Norwood 540 provide. Norwood 969 provides a flat lower surface (51) that is perpendicular to the piston wall. (See Norwood 969; FIGS. 3 and 4). Additionally, Norwood 540 provides a piston ring where "[t]he end walls 9 and 10 of the ring are flat and at right angles to the inner periphery 11". (See Norwood 540; Page 1, Lines 64-66; FIG. 2). Thus, because the prior art does not provide a "generally hook-shaped groove," claim 1 is in condition for

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allowance. Claims 2-5 and 7-10 depend from claim 1. Accordingly, for at least the same reasons as claim 1, claims 2-5 and 7-10 are in condition for allowance.

Claim 11, as amended, requires that "said lower surface further includes a generally hook-shaped groove and the intersection of said generally hook-shaped groove and said outer peripheral face defines said edge," that neither Norwood 969 nor Norwood 540 provide. As discussed above, Norwood 969 provides a flat lower surface (51) that is perpendicular to the piston wall. (See Norwood 969; FIGS. 3 and 4). Additionally, Norwood 540 provides a piston ring where "[t]he end walls 9 and 10 of the ring are flat and at right angles to the inner periphery 11". (See Norwood 540; Page 1, Lines 64-66; FIG. 2). Thus, because the prior art does not provide a "generally hook-shaped groove," claim 11 is in condition for allowance. Claims 12-15 depend from claim 1. Accordingly, for at least the same reasons as claim 11, claims 12-15 are in condition for allowance.

## **II. Claim Rejections Under 35 U.S.C. 103(a)**

Claims 1 - 16 have been rejected as being unpatentable under 35 U.S.C. § 103(a) over the discussion of Figures 1 and 2 of the application in view of any one of the following references - Norwood 969, Norwood 540, U.S. Patent No. 1,471,700 to Moore (hereinafter "Moore"), U.S. Patent No. 1,534,198 to Wilson (hereinafter "Wilson"), U.S. Patent No. 1,557,256 to Bonsky (hereinafter "Bonsky"), U.S. Patent No. 1,586,459 to Norton (hereinafter "Norton"), U.S. Patent 3,563,442 to Kretchman (hereinafter "Kretchman"), U.S. Patent No. 2,340,466 to Gosling (hereinafter "Gosling"), or GB-992,123 to Luxembourggeoise de Brevets & de Participations (hereinafter "Luxembourg"). Applicant respectfully traverses the rejection and notes that the remarks presented above with respect to the §102 rejection of the claims are equally applicable here.

## **The Law**

MPEP Section 2143 sets forth the basic requirements for the Patent and Trademark Office to establish *prima facie* obviousness as follows: "To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary

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skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

“The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant’s disclosure.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As stated in *Akzo N.V. v. United States Int’l Trade Comm’n*, 1 USPQ2d 1241 (Fed. Cir. 1986), prior art references must be read as a whole.

“The examiner must show reasons that the skilled artisan, confronted with the same problem as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.” *In re Rouffet*, 47 USPQ2d, 1453 at 1458 (Fed. Cir. 1998).

It is established law that one “cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *Ecolochem, Inc. v. Southern Cal. Edison Co.*, 227 F.3d 1361, 1371, 56 USPQ2d 1065 (Fed. Cir. 2000) (citing *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1780, 1783 (Fed. Cir. 1988)). Indeed, “[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight.” *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Moreover, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

#### Summary of the References Cited by the Examiner

Norwood 969 provides a flat lower surface (51) that is perpendicular to the piston wall. (See Norwood 969; FIGS. 3 and 4). Norwood 540 provides a piston ring where “[t]he end walls 9 and 10 of the ring are flat and at right angles to the inner periphery 11”. (See Norwood 540; Page 1, Lines 64-66; FIG. 2).

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Moore provides a flat lower surface (near 4) that is perpendicular to the piston wall. (See Moore; FIG. 2). Further, Moore teaches a flat surface (between 3 and 4) for contacting the piston wall. (See Moore; FIG. 2). Thus, Moore teaches away from the claimed invention. Similarly, Wilson teaches away from the claimed invention by providing a parallel surface (between 6 and 8) for contacting the cylinder wall. (See Wilson; FIGS. 1, 4 and 5). Bonsky further teaches away from the claimed invention. Bonsky provides an "enlargement 6 from each side toward the outer bearing contact of the ring on the cylinder wall." (See Bonsky; Page 1, Lines 34-40; FIG. 1). As the Examiner notes, the "outer surface of the projection (6) is parallel with a surrounding cylinder (2)." (See Office Action; Page 5, Lines 1-4).

Norton provides surfaces 14, 15 that are parallel to the cylinder wall 10. (See Norton; FIG. 2; Page 1, Lines 61-68). Kretchman provides a flat foot (near 76 and 80). (See Kretchman; FIGS. 2 and 3). Gosling provides a "lip 31 facing toward the head of the piston." (See Gosling; Page 2, Lines 8-11; FIG. 2). Thus, Gosling teaches away from the edges of each of claims 1 and 11. Similarly, Luxembourg discloses lips 3 and 4 that include flat surfaces rather than defining an edge. (See Luxembourg; FIG. 7).

#### Claims 1-5 and 7-10

Claim 1, as amended, requires that "the intersection of the generally hook-shaped groove and the outer peripheral face defines an edge, wherein said outer peripheral face is generally tapered to define said edge and includes a projection extending therefrom." As claimed, the edge is not taught or suggested by the cited prior art. The Examiner's attempt to use Applicant's disclosure as a blueprint for a §103 rejection cannot be successful. The Applicant's disclosure is not to be used to provide motivation or suggestion to combine the references as explained above in *In re Dembiczak* and *In re Vaeck*.

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Because the Applicant's disclosure cannot be used as a blueprint for the rejection, the Examiner must provide the suggestion or motivation to combine the references. The Examiner himself has recited a number of possible utilities for combining some of the prior art features. However, the Examiner has not provided a motivation or suggestion to combine the references in a manner to create the structure in claim 1. (See Office Action; Page 5, Paragraph 4). Further, as noted above in the summary, the references cited by the Examiner do not contain an "edge" as claimed as well as the "generally hook-shaped groove" and "a projection". (See Claim 1).

Thus, the prior art of record does not provide that "the intersection of the generally hook-shaped groove and the outer peripheral face defines an edge, wherein said outer peripheral face is generally tapered to define said edge and includes a projection extending therefrom." Further, there is no suggestion or motivation from the references that particular elements could or should be combined in the form as claimed. Additionally, neither the Examiner, nor the references mention that there would be a reasonable expectation of success if the combination were made. Finally, the prior art references do not teach or suggest all the claim limitations. Thus, claim 1 is in condition for allowance. Claims 2-5 and 7-10 depend from claim 1. Accordingly, for at least the same reasons as claim 1, claims 2-5 and 7-10 are in condition for allowance.

#### Claim 11-15

Claim 11, as amended, requires an "outer peripheral face being generally tapered to an edge such that said edge contacts the wall of the cylinder and defines a gap between said outer peripheral face and the wall," where "a projection disposed on said outer peripheral face to reduce the gap between said outer peripheral face and the wall, wherein said lower surface further includes a generally hook-shaped groove and the intersection of said generally hook-shaped groove and said outer peripheral face defines said edge." As claimed, the edge is not taught or suggested by the cited prior art.

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As noted above, the Applicant's disclosure cannot be used as a blueprint for the rejection. (See above; *In re Dembiczak* and *In re Vaeck*). Thus, the Examiner must provide the suggestion or motivation to combine the references. Again, as noted above, the Examiner has not provided a motivation or suggestion to combine the references to create the limitations as provided in claim 11. (See Office Action; Page 5, Paragraph 4). Further, the references do not contain an "edge" as claimed as well as that "the intersection of said generally hook-shaped groove and said outer peripheral face defines said edge."

Thus, the references do not provide an "outer peripheral face being generally tapered" where a "lower surface further includes a generally hook-shaped groove and the intersection of said generally hook-shaped groove and said outer peripheral face defines said edge." (See Claim 11). As noted above, there is no suggestion or motivation from the references that particular elements could or should be combined in the form as claimed. Additionally, neither the Examiner, nor the references mention that there would be a reasonable expectation of success if any combination were made. Finally, the prior art references do not teach or suggest all the claim limitations. Thus, claim 11 is in condition for allowance. Claims 12-15 depend from claim 11. Accordingly, for at least the same reasons as claim 11, claims 12-15 are in condition for allowance.

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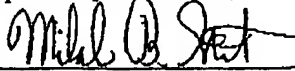
**III. Conclusion**

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. 60680-1818 from which the undersigned is authorized to draw.

Dated:

Respectfully submitted,

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